

D. Remarks

At the outset, Applicants and the undersigned wish to thank Examiner Grier for the courtesies extended during the telephonic interview conducted on July 27, 2004.

In the office action, the specification and claim 9 were objected to due to minor informalities. Additionally, claims 1-14 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Pub. 2002/0137505A1 to Eiche et al. Applicants respectfully traverse the rejections as follows.

Objection to the Specification

Applicants have herein amended the specification to correct the misspelled word "continuous" at paragraph 0017 in the manner suggested by the Examiner.

§ 102(e) Rejection of Claims 1-5

Applicants have amended independent claim 1 to provide:

[a]n apparatus for generating a muting signal, the apparatus comprising:

an audio signal detector for remotely receiving an audible ring signal transmitted via an acoustic medium; and

a processor in communication with the detector, wherein the processor is configured to:

convert the received audible ring signal into a digitized received audio ring signal;

compare the digitized received audio ring signal with one or more predetermined digitized audio ring signals, wherein each of the one or more predetermined digitized audio ring signals is associated with a corresponding device and is pre-stored in one of a memory device and a storage device associated with the processor; and

generate a muting signal based on the comparison when at least a component of the digitized received audio

ring signal matches one of the one or more pre-stored predetermined digitized audio ring signals.

Support for this amendment may be found throughout the specification and claims as filed, such as, for example, at paragraphs 0015 and 0017.

Applicants respectfully submit Eiche does not anticipate claim 1 because Eiche fails to disclose each and every element of claim 1. See MPEP § 2131 (stating that a claim is anticipated only if each and every element as set forth in the claim is disclosed in a single prior art reference). More specifically, Applicants submit that Eiche fails to disclose, among other things, an apparatus for generating a muting signal that includes, in relevant part:

an audio signal detector for remotely receiving an audible ring signal transmitted via an acoustic medium; and

a processor in communication with the detector, wherein the processor is configured to:

convert the received audible ring signal into a digitized received audio ring signal; [and]

compare the digitized received audio ring signal with one or more predetermined digitized audio ring signals, wherein each of the one or more predetermined digitized audio ring signals is associated with a corresponding device and is pre-stored in one of a memory device and a storage device associated with the processor,

as recited in claim 1.

First, Eiche fails to disclose a received signal that includes an “**audible ring signal transmitted via an acoustic medium**,” as recited in claim 1. Rather, Eiche discloses a processor-based system for providing hands-free operation of a wireless device comprising a pocket for mechanically and electrically interfacing the wireless communication device and a docking station in communication with the wireless device via the pocket. See, e.g., Abstract and Figure 3. Eiche further discloses that the

system may generate an audio mute command to disable or reduce the amplitude of inputs to an automobile entertainment system when a received signal containing audible frequencies, such as a ring signal or dial tone, is detected by an audio detection subsystem. See, e.g., paragraphs 0016 and 0017. Regarding the physical nature of the received signal, Eiche states: “[t]he received signal may be passed from the telephone to the subsystem over the digital data 308 or phone control lines 314.” See, e.g., paragraph 0115, step 1404 of Figure 14, and step 1504 of Figure 15. Accordingly, the “received signal” of Eiche is not an “audible ring signal transmitted via an acoustic medium” as recited in claim 1, but rather an electrical signal transmitted via an electrical medium.

Second, Eiche fails to disclose

a processor in communication with the detector, wherein the processor is configured to ***convert the received audible ring signal into a digitized received audio ring signal***,

as recited in claim 1. Rather, Eiche merely discloses that prior to analyzing the frequency of the received signal, processing of the received signal by the audio detection subsystem “may include amplification, filtering, and pulse shaping.” See, e.g., paragraphs 0119-122, Figures 13-14. None of these processing steps teach or suggest conversion of the received signal into a digital representation. Similarly, the disclosed methods for measuring frequency (e.g., detecting zero crossing or counting rising edges of squared received signal per unit time) fail to teach or suggest conversion of the received signal into a digital representation. See, e.g., paragraph 0123.

Third, Eiche nowhere discloses

a processor in communication with the detector, wherein the processor is configured to...***compare the digitized***

***received audio ring signal with one or more
predetermined digitized audio ring signals...***

as recited in claim 1. Although the Examiner contends at page 3 of the office action that these features are “inherent,” the disclosed methods differ from the subject matter recited in claim 1 as follows.

Eiche discloses measuring frequency using detection of zero crossings per unit time or detection of rising edges per unit time. Application of these techniques in no way relies on a processor configured to “compare the digitized received audio ring signal with one or more predetermined digitized audio ring signals,” as recited in claim 1. Rather, frequency is measured based on the number of zero crossing transitions or rising edge transitions detected in the measured signal over a fixed time period. The measured frequency (a number) is then compared to an audible frequency range (a range of numbers) to see if the measured frequency is an audible frequency.

Accordingly, Applicants respectfully traverse the Examiner’s conclusion that the claimed feature of a “processor configured to compare the digitized received audio ring signal with one or more predetermined digitized audio ring signals” is inherent (*i.e.*, necessarily present) in the system disclosed by Eiche. If the position is maintained that this feature is inherent in Eiche, Applicants respectfully request that it be specifically pointed out why such a feature is necessarily present in Eiche.

For at least the above reasons, Applicants respectfully submit that claim 1, as well as claims 2-4 depending therefrom, are not anticipated by Eiche. Applicants therefore respectfully request that the § 102(e) rejections of 1-4 be withdrawn.

§ 102(e) Rejection of Claims 6-7

Claim 6 is directed to an apparatus for generating a muting signal and has been amended in a manner similar to claim 1. Therefore, for reasons analogous to those presented above with respect to claim 1, Applicants respectfully submit that claim 6, as well as claim 7 depending therefrom, are not anticipated by Eiche. Applicants therefore respectfully request that the § 102(b) rejections of claims 6-7 be withdrawn.

§ 102(e) Rejection of Claims 9-10

Claims 9-10 are directed to an apparatus and a method, respectively, for generating a muting signal and have each been amended in a manner similar to claim 1. Therefore, for reasons analogous to those presented above with respect to claim 1, Applicants respectfully submit that claims 9-10 are not anticipated by Eiche. Applicants therefore respectfully request that the § 102(e) rejections of claims 9-10 be withdrawn.

Applicants also respectfully submit that the amendment of claim 9 also addresses the Examiner's objection thereto based on insufficient antecedent basis for the claim term "storage device."

§ 102(e) Rejection of Claims 11-14

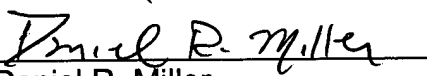
Claim 11 is directed to an audio device and has been amended in a manner similar to claim 1. Therefore, for reasons analogous to those presented above with respect to claim 1, Applicants respectfully submit that claim 11, as well as claims 12-14 depending therefrom, are not anticipated by Eiche. Applicants therefore respectfully request that the § 102(e) rejections of claims 11-14 be withdrawn.

Applicants are not otherwise conceding, however, the correctness of the Office's rejection with respect to any of the dependent claims discussed above and hereby reserve the right to make additional arguments as may be necessary because the dependent claims include additional features which further distinguish the claims from the cited reference. A detailed discussion of these differences is believed to be unnecessary at this time in view of the basic differences in the independent claims identified above.

E. Conclusion

In view of the above, Applicants respectfully request withdrawal of the rejections and allowance of the claims. If the Examiner is of the opinion that the instant application is in condition for disposition other than allowance, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number listed below in order that the Examiner's concerns may be expeditiously addressed.

Respectfully submitted,


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